

ILLEX FIGURES

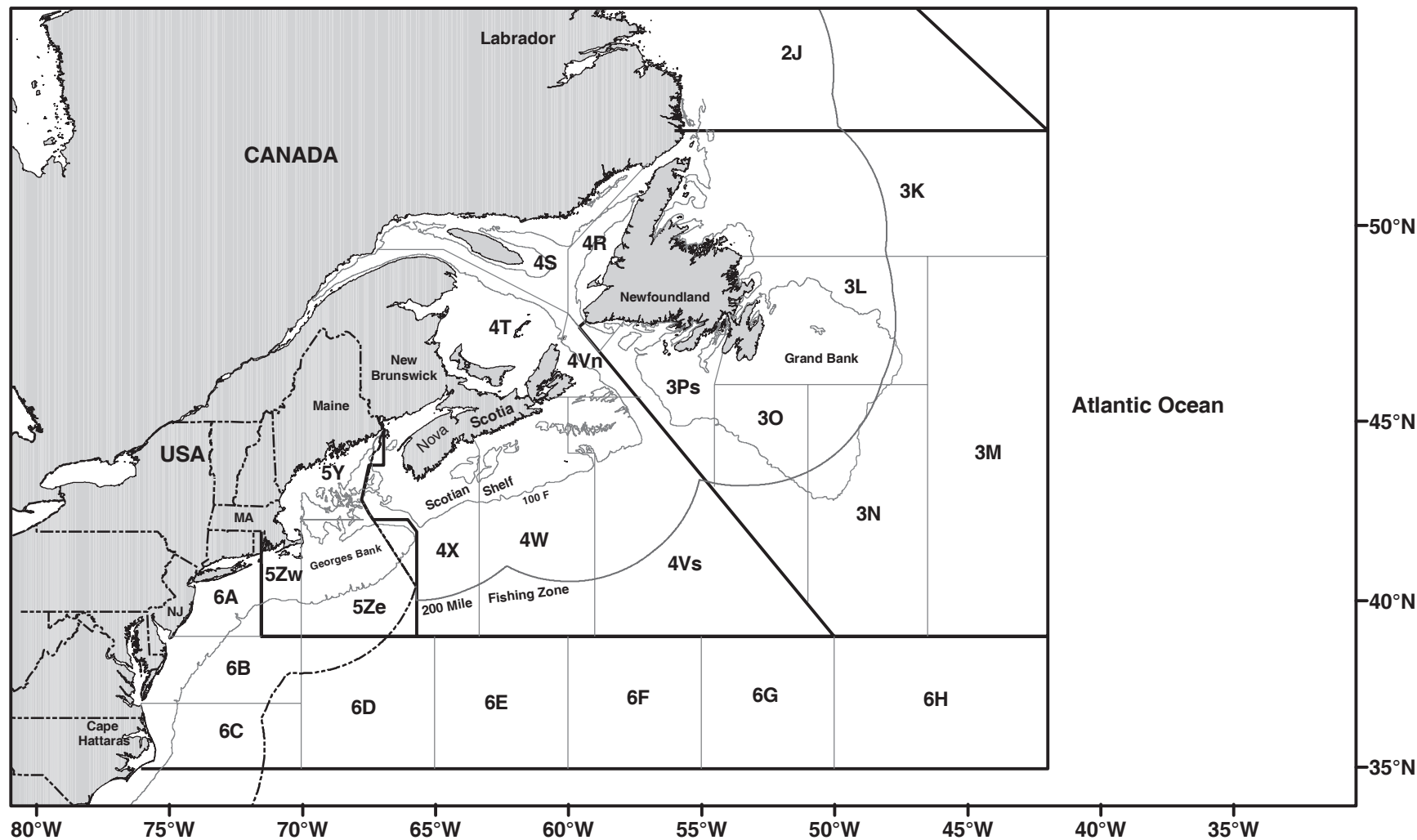


Figure C1. Catch reporting areas of the Northwest Atlantic Fisheries Organization (NAFO) for Subareas 3-6.

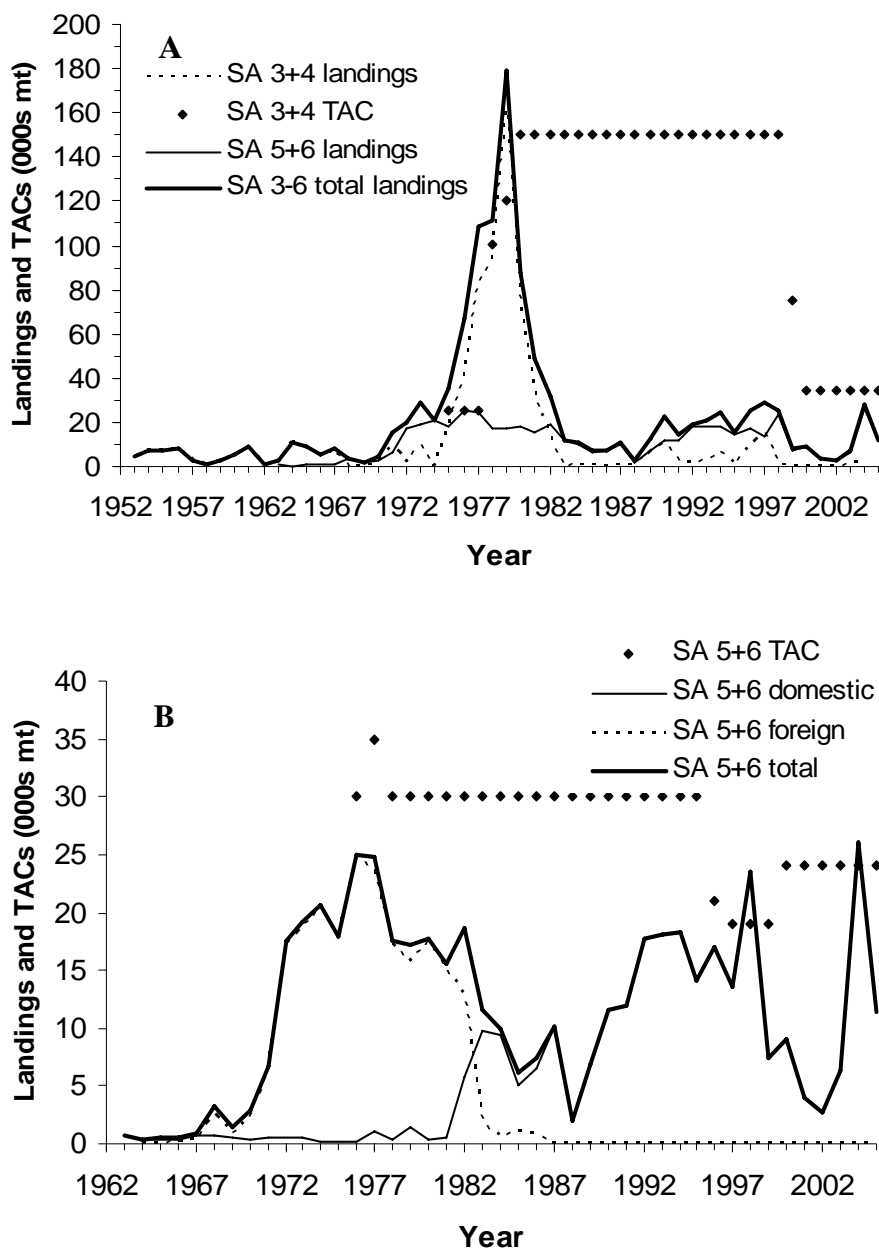


Figure C2. Total landings of *Illex illecebrosus* in (A) NAFO Subareas 3-6 and (B) in the US EEZ (NAFO Subareas 5+6), with respect to annual TACs, during 1963-2005.

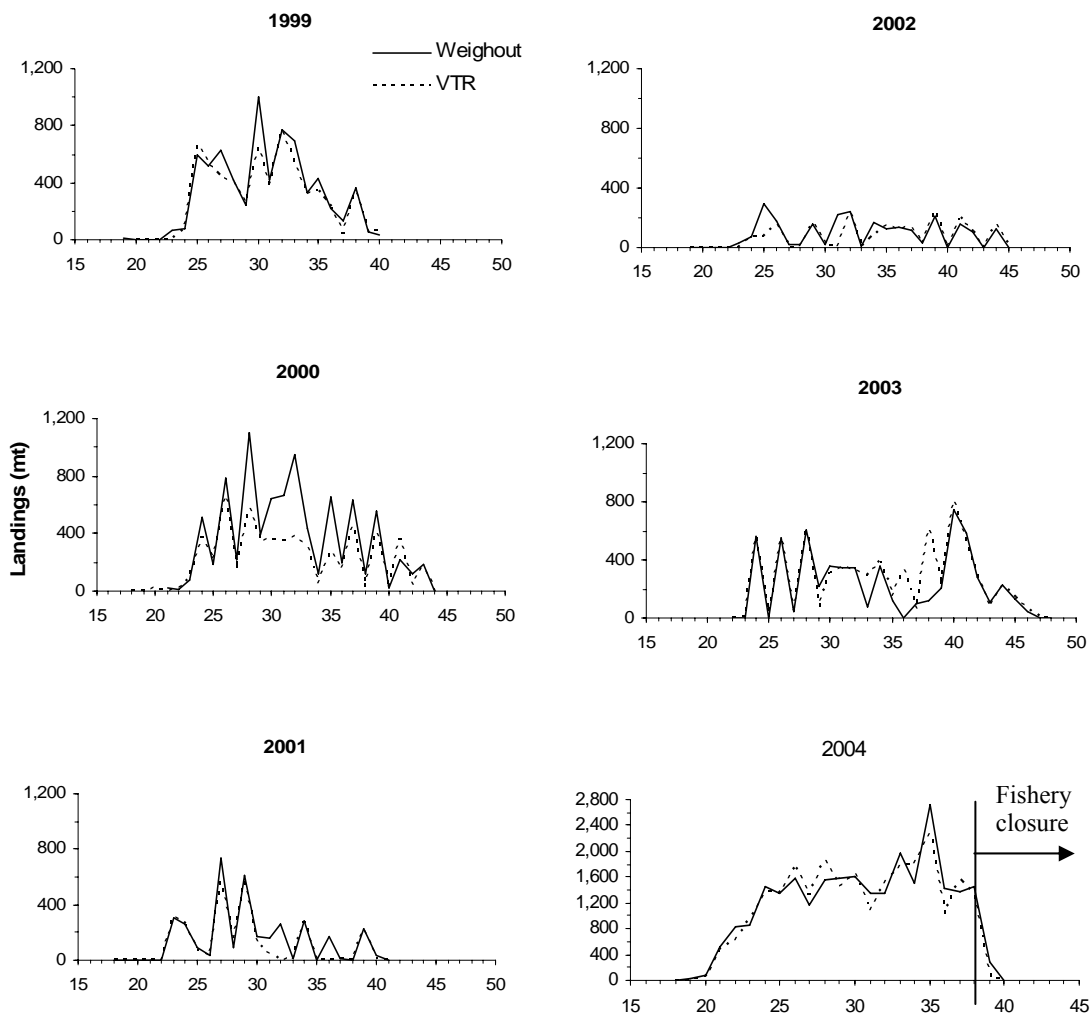


Figure C3. Trends in weekly *Illex illecebrosus* landings from the Weighout database versus the Vessel Trip Report database during 1999-2004.

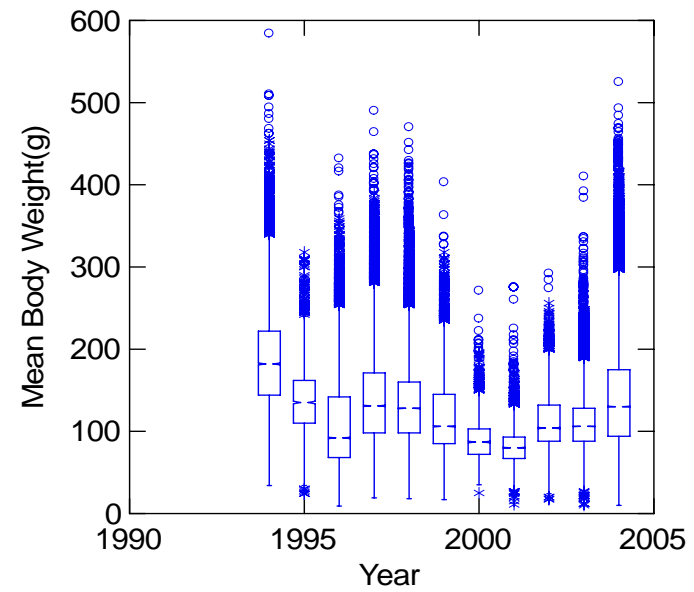
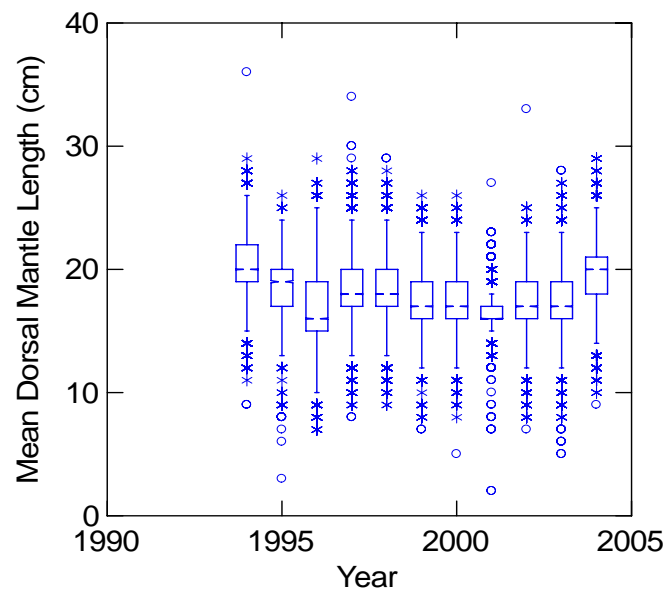


Figure C4. Annual trends in the dorsal mantle length (cm) and body weight (g) of *Illex illecebrosus* landed during 1994-2004. The boxes represent the boundaries of the interquartile range and the notch within the box represents the median.

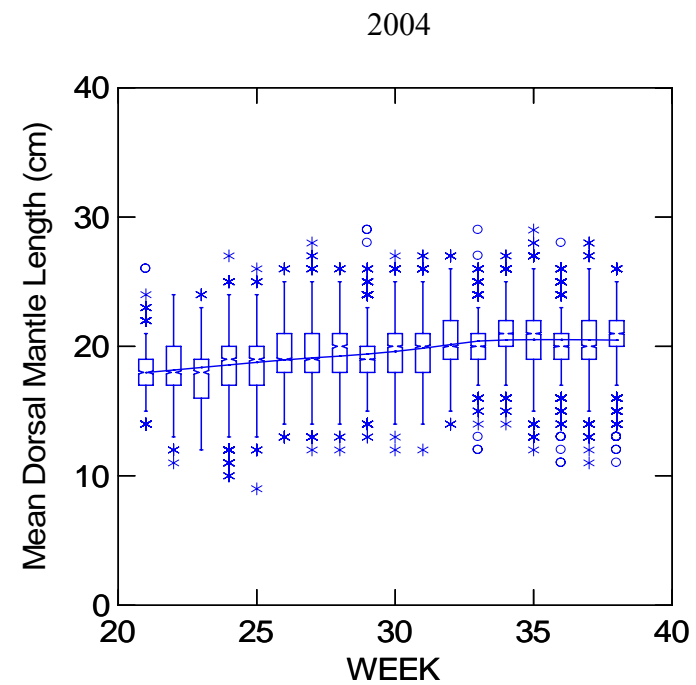
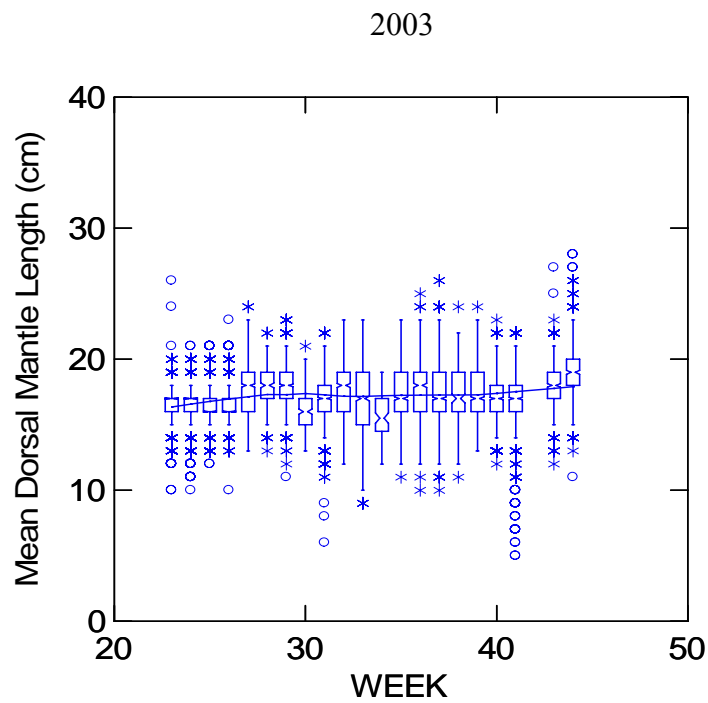


Figure C5. Weekly trends in the dorsal mantle length (cm) of *Illex illecebrosus* landings during 2003 and 2004. The solid line represents a loess smooth of the observed values with a tension factor of 0.5.

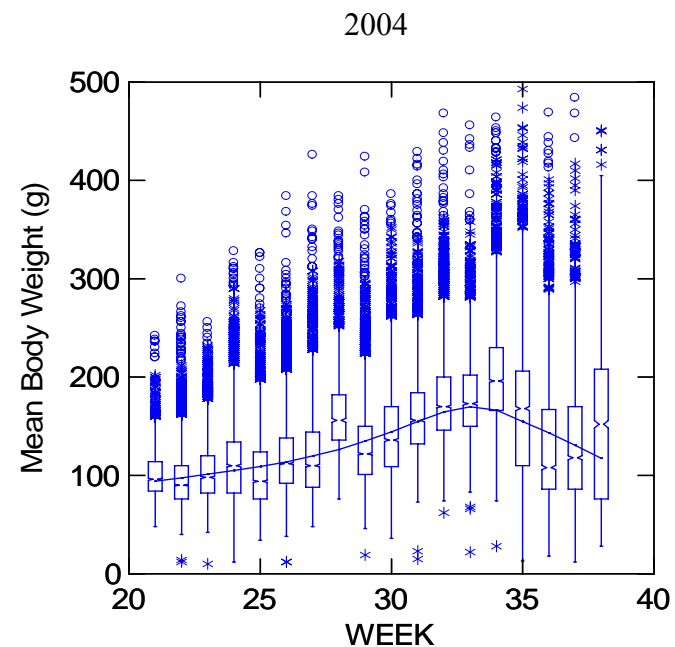
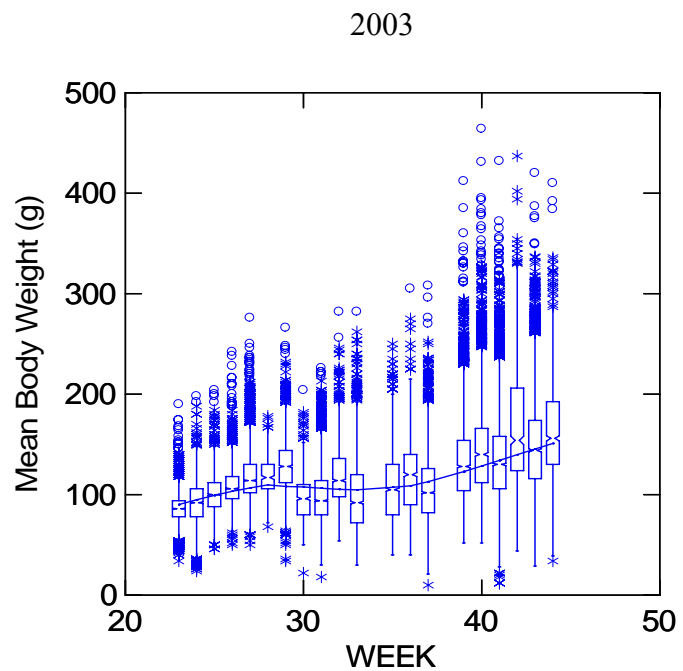


Figure C6. Weekly trends in the body weight (g) of *Illex illecebrosus* landings during 2003 and 2004. The solid line represents a loess smooth of the observed values with a tension factor of 0.5.

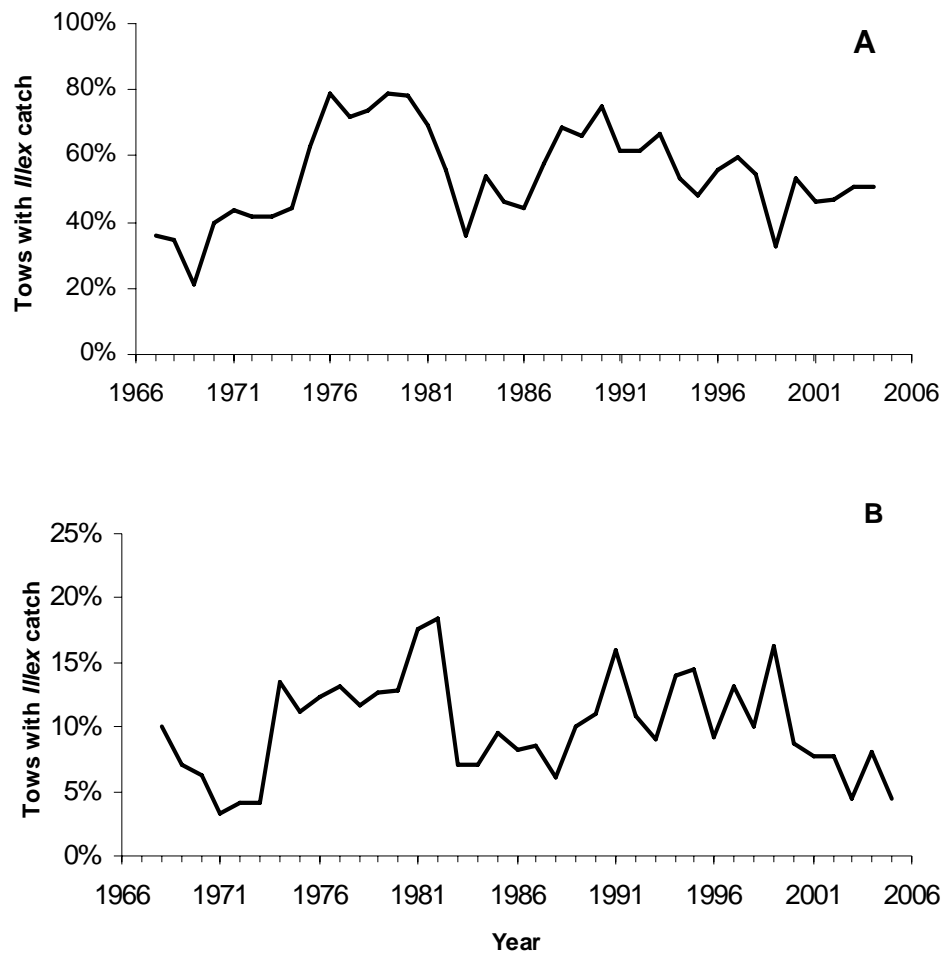


Figure C7. Annual trends in the percentage of tows with *Illex* catch, in offshore strata sampled during the (A) NEFSC autumn (1967-2004) and (B) spring (1968-2005) research bottom trawl surveys.

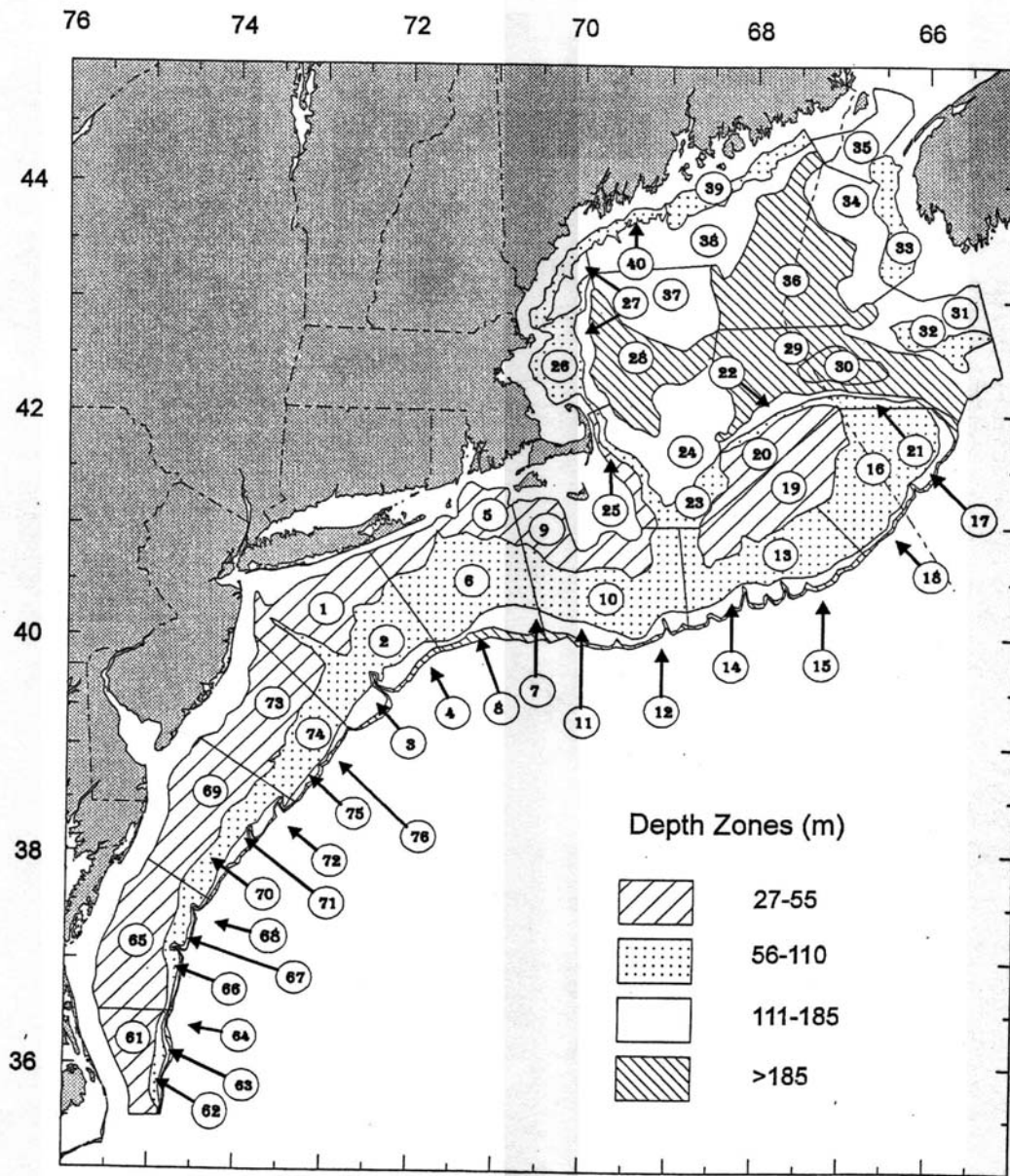


Figure C8. Offshore depth strata sampled during Northeast Fisheries Science Center bottom trawl research surveys.

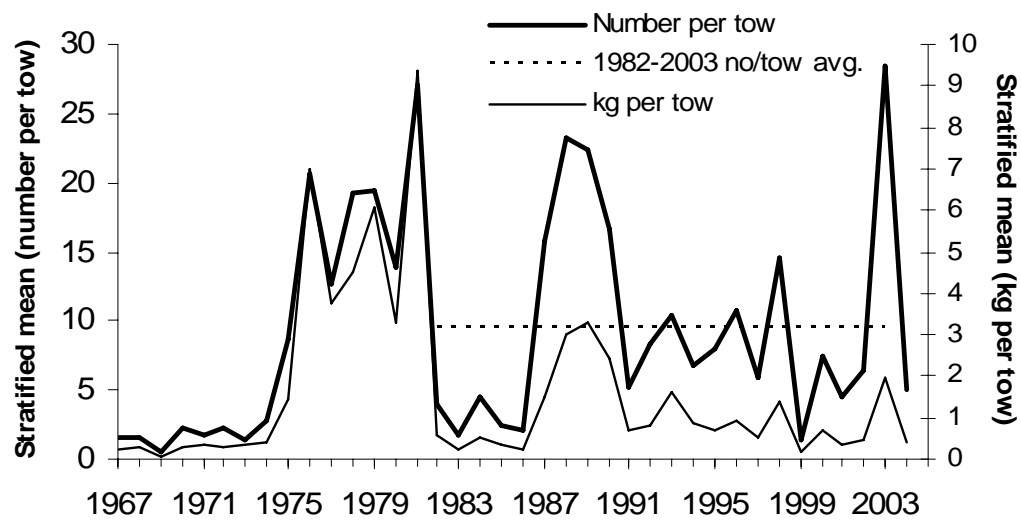


Figure C9. Trends in *Illex illecebrosus* relative abundance (stratified mean number tow) and biomass (stratified mean kg per tow) indices based on data from NEFSC autumn bottom trawl surveys conducted on the USA shelf during 1967-2004.

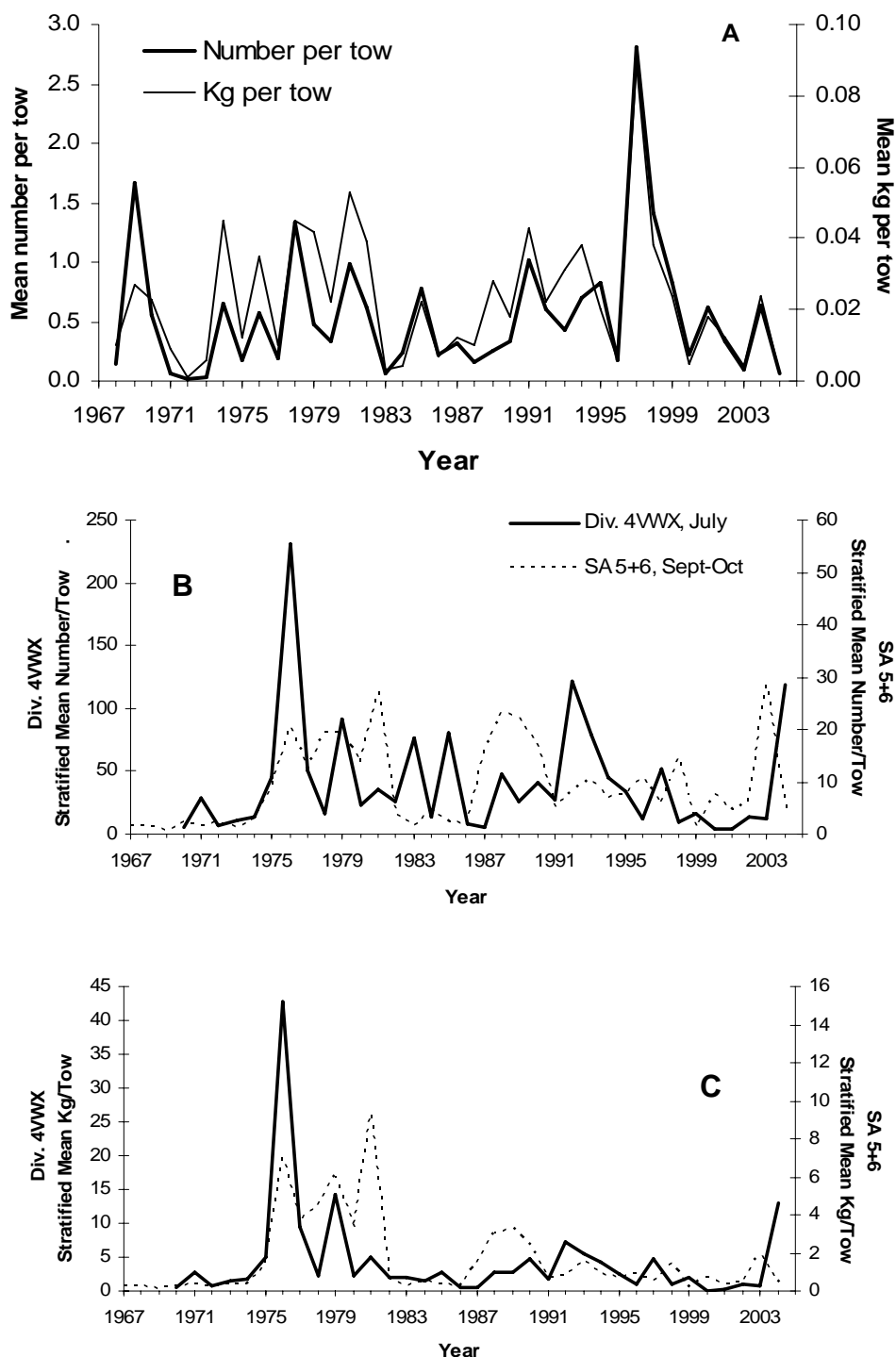


Figure C10. Trends in *Illex illecebrosus* relative abundance (stratified mean number per tow) and biomass (stratified mean kg per tow) based on bottom trawl surveys of (A) the USA shelf during March and (B and C) the USA shelf in September/October and the Scotian Shelf in July. Scotian Shelf survey indices could not be standardized for gear and vessel changes that occurred in 1982, 1983 and 2004.

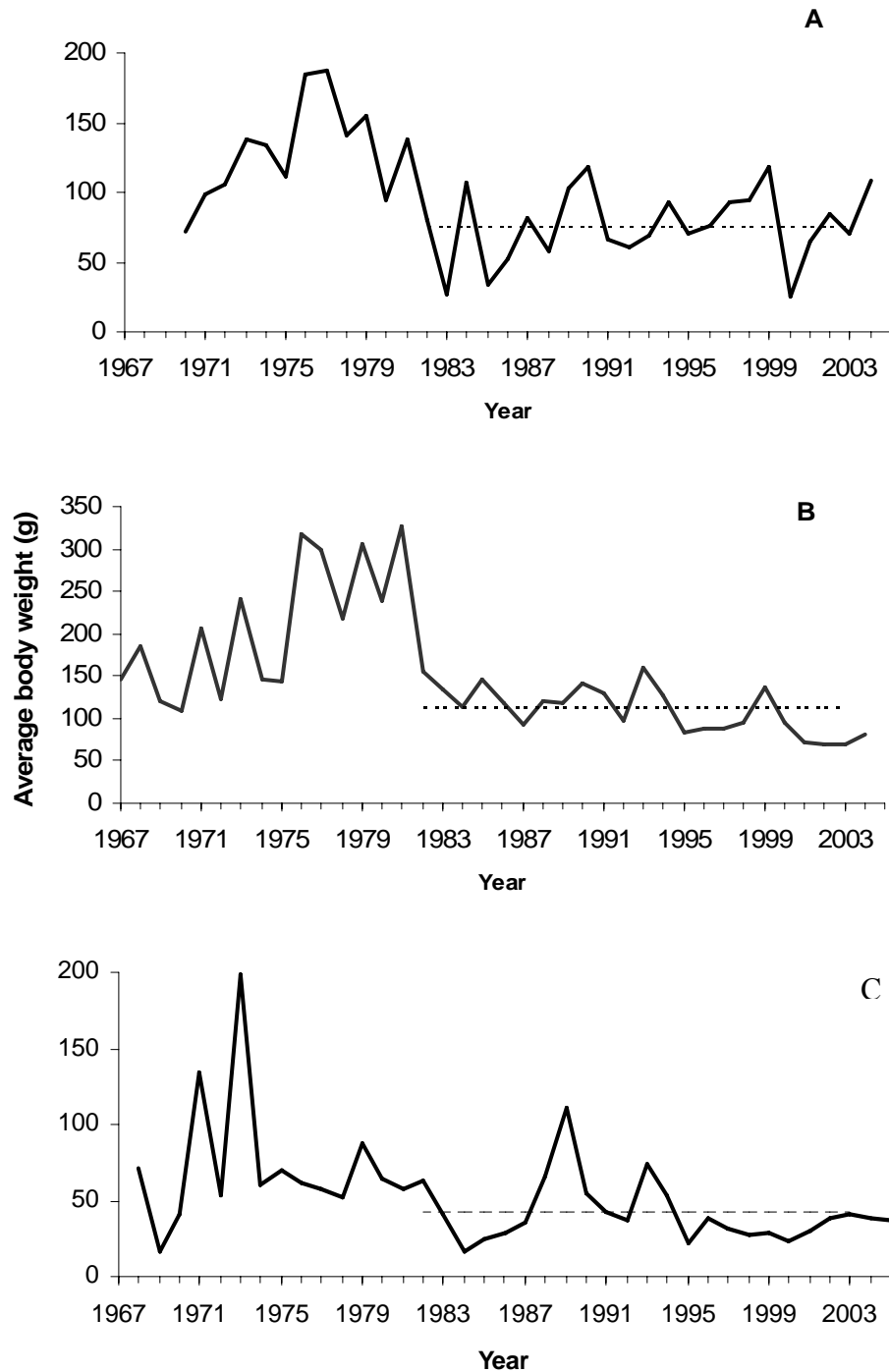


Figure C11. Trends in average body weight (g) of *Illex illecebrosus* caught during (A) Canadian research bottom trawl surveys conducted in July on the Scotian Shelf (1970-2004) and NEFSC (B) autumn (1967-2004) and (C) spring (1968-2005) research bottom trawl surveys of the U. S. Shelf. The dashed line represents the 1982-2003 average body weight.

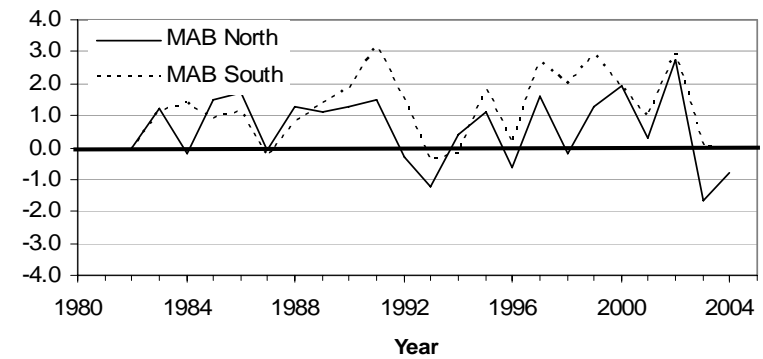
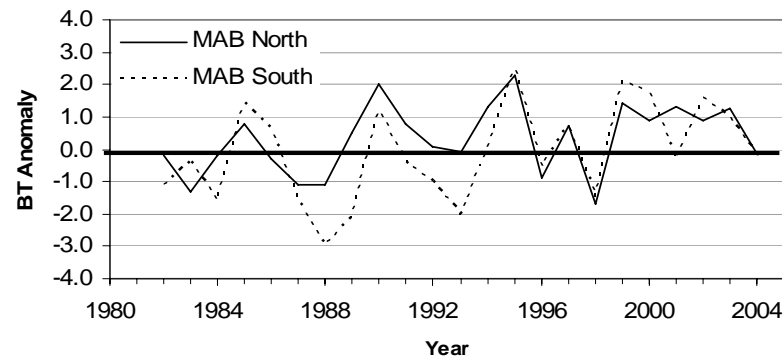
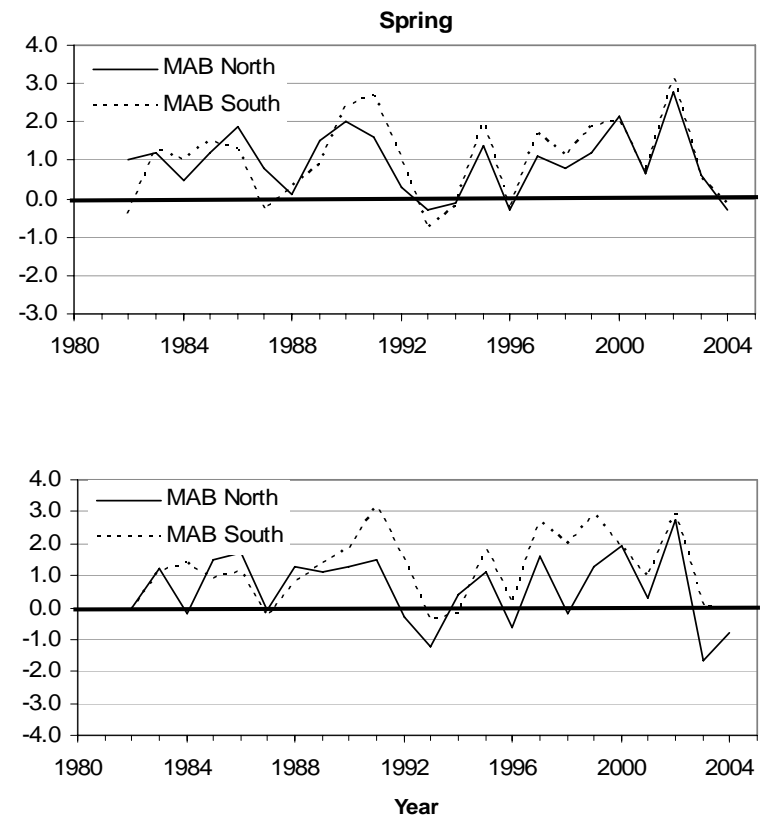
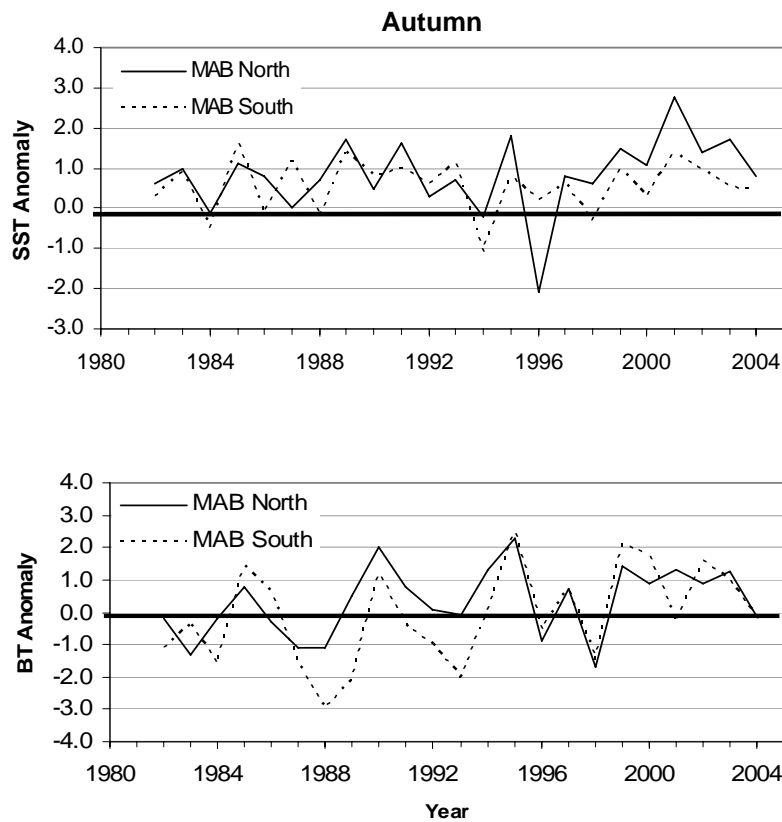


Figure C12. Sea surface temperature and bottom temperature anomalies in the Mid-Atlantic Bight, north versus south, during NEFSC autumn and spring research bottom trawl surveys, 1982-2004. The reference period is 1977-1987.

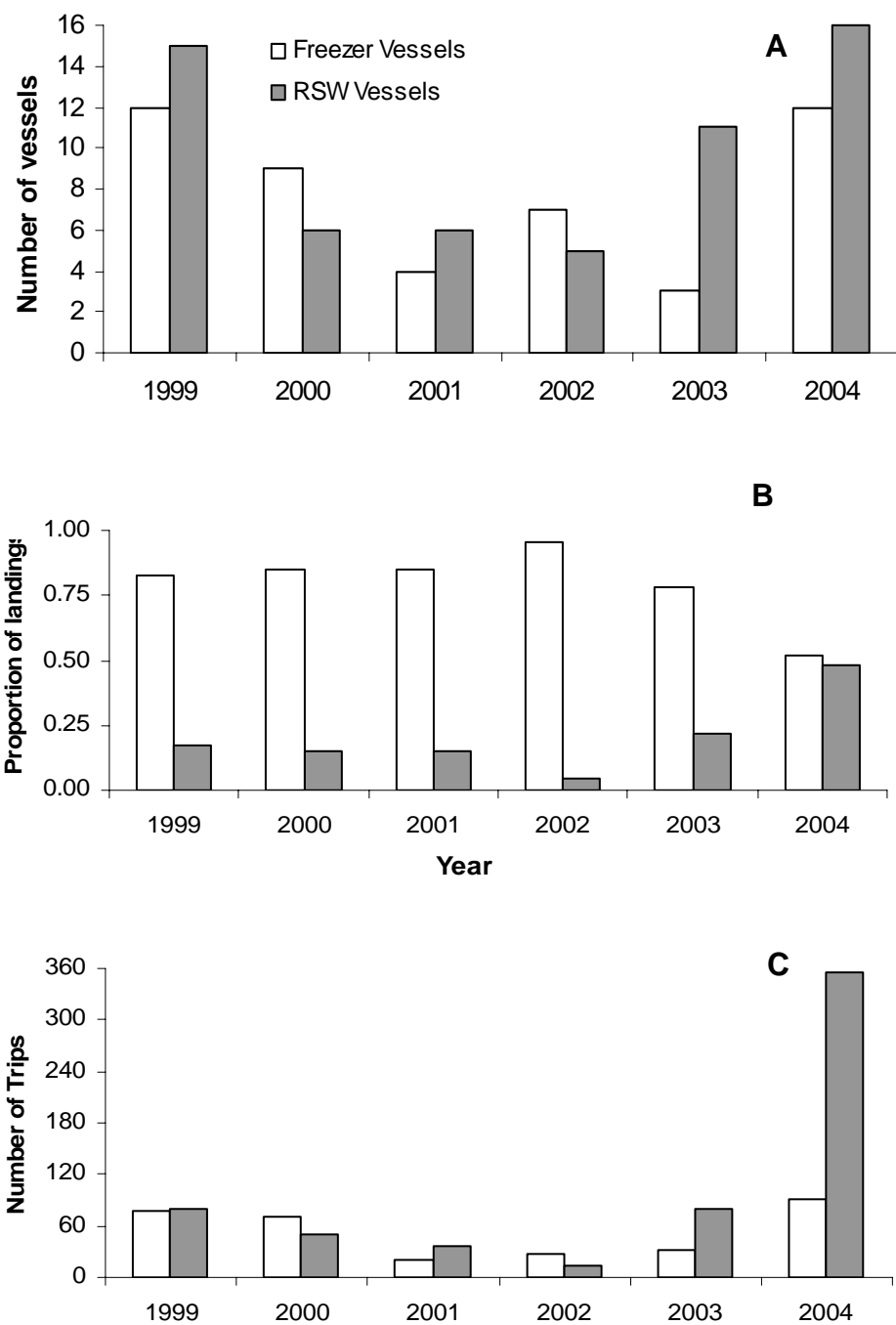


Figure C13. Number of (A) vessels, (B) proportion of annual landings and (C) number of trips, by fleet sector, in the directed fishery during 1999-2004.

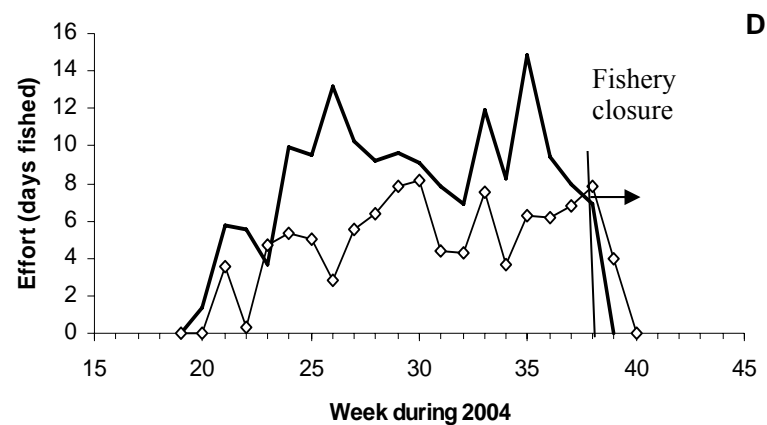
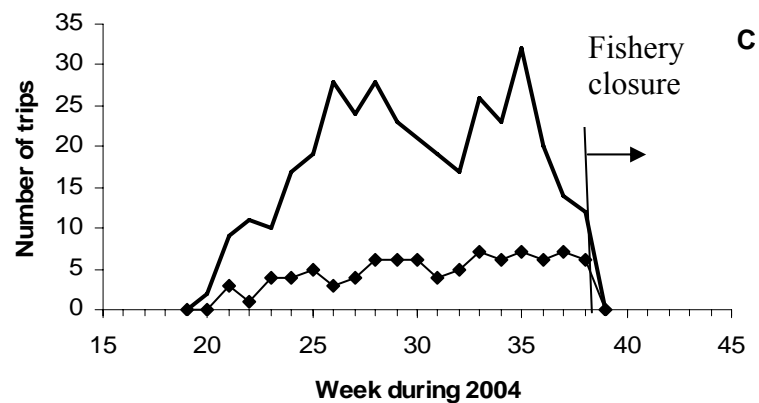
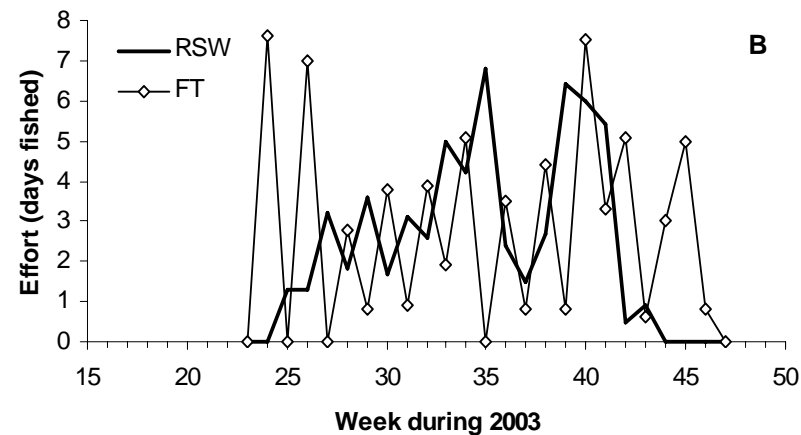
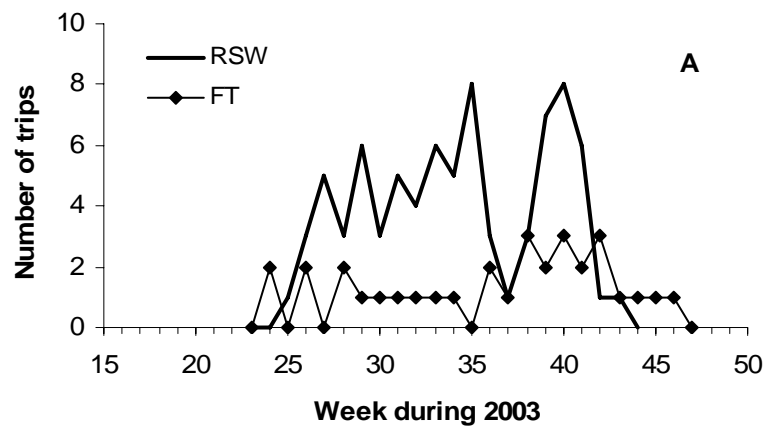


Figure C14. Number of fishing trips and nominal effort (days fished) for freezer trawlers (FT) and refrigerated seawater system (RSW) trawlers, by week, during 2003 (A and B) and 2004 (C and D).

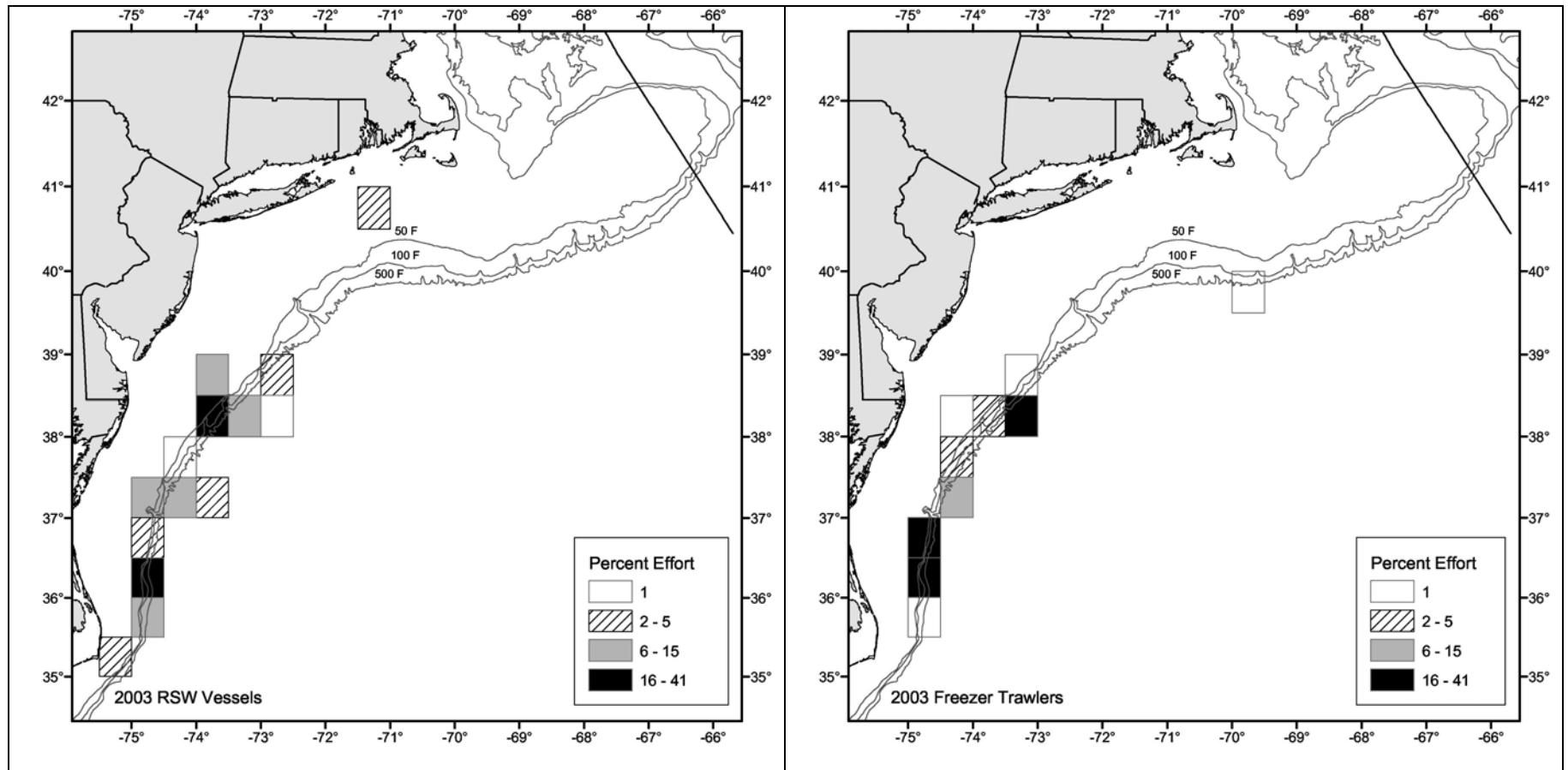


Figure C15. Percentage of nominal annual effort, by quarter-degree square, for refrigerated seawater system (RSW) trawlers and freezer trawlers participating in the *Illex illecebrosus* fishery during 2003.

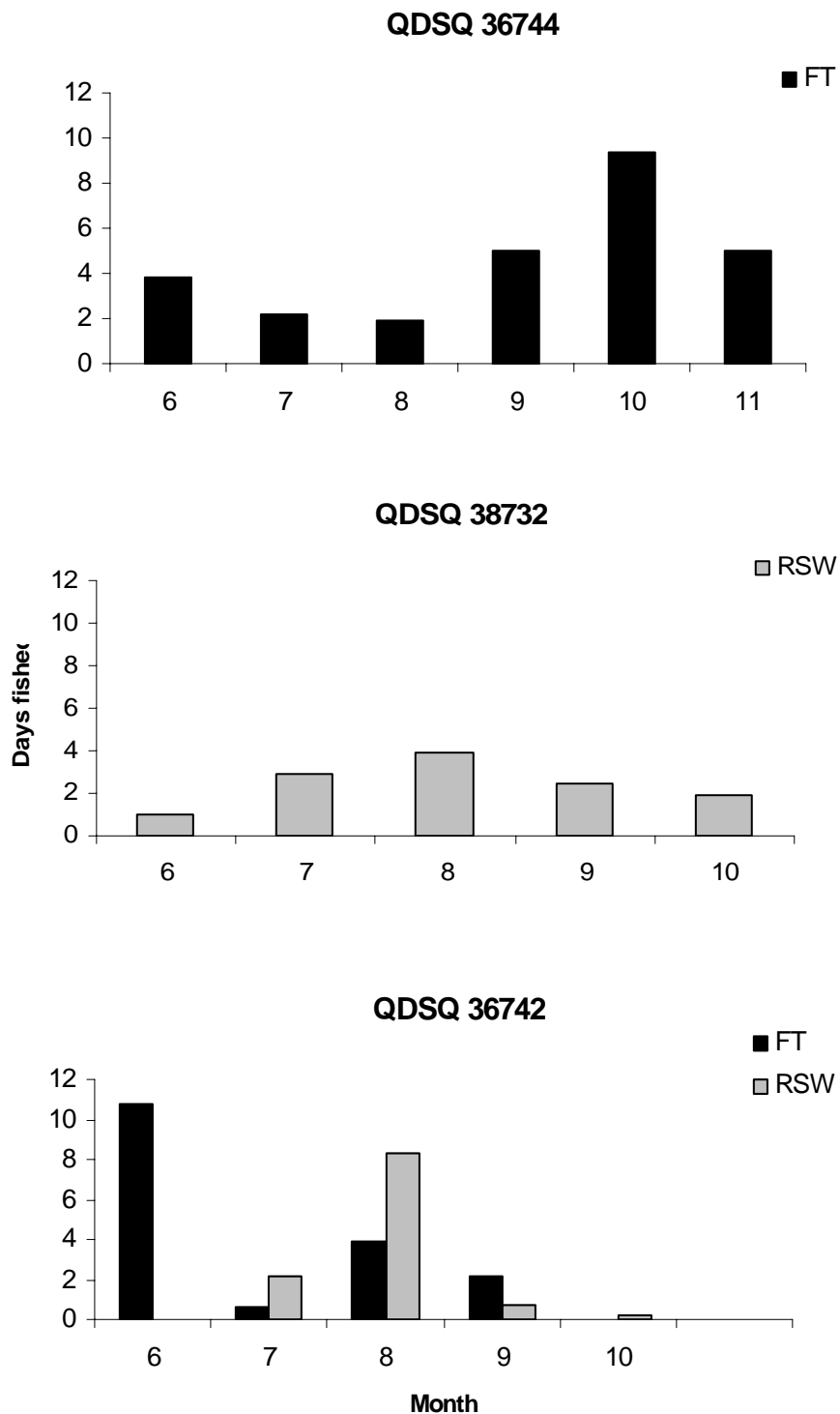


Figure C16. Effort (days fished), by fleet sector and month, in quarter-degree squares that were consistently fished during the 2003 *Illex* fishery. FT represents freezer trawlers and RSW represents refrigerated seawater system trawlers.

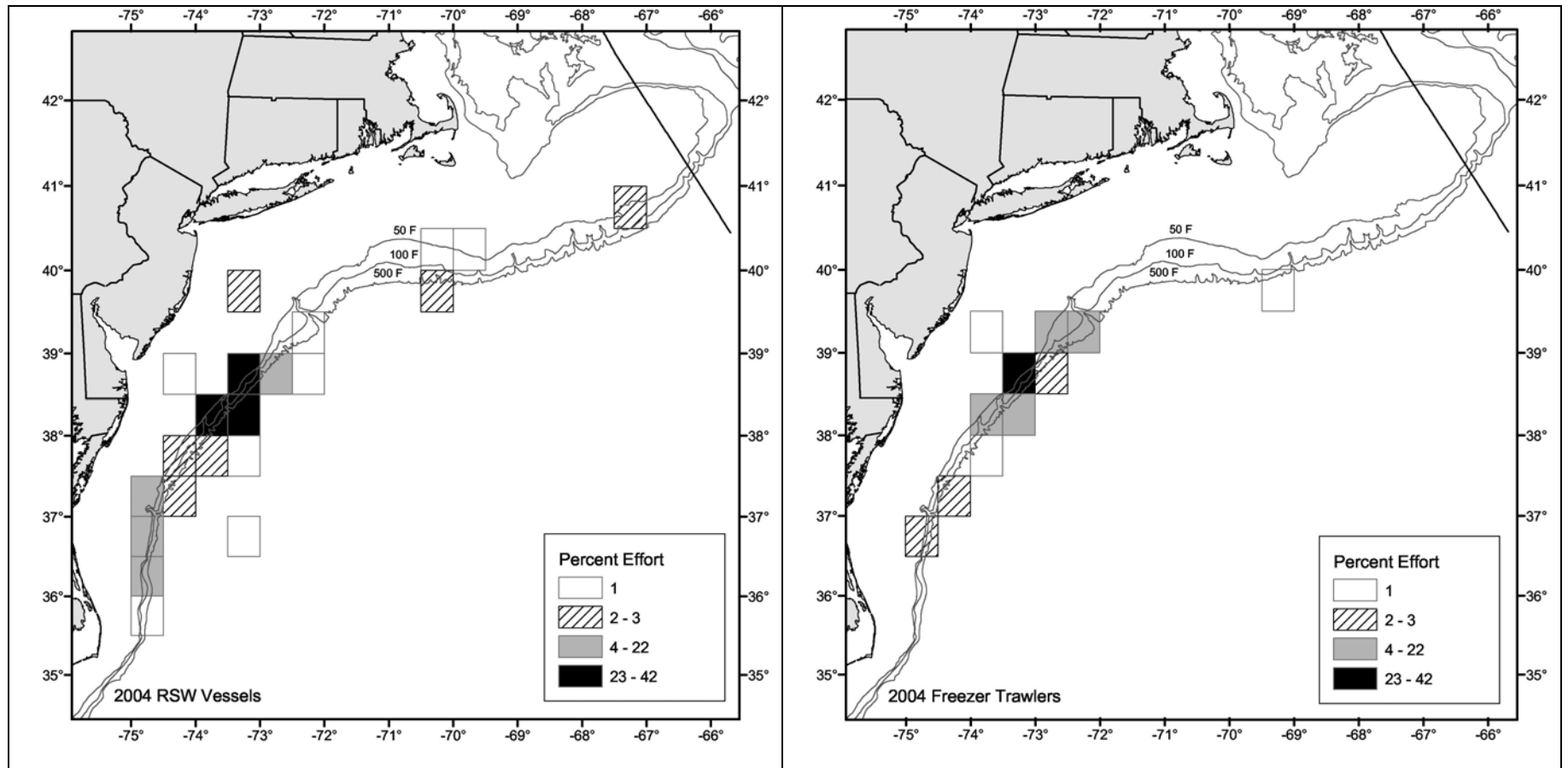


Figure C17. Percentage of nominal annual effort, by quarter-degree square, for refrigerated seawater system (RSW) trawlers and freezer trawlers participating in the *Illex illecebrosus* fishery during 2004.

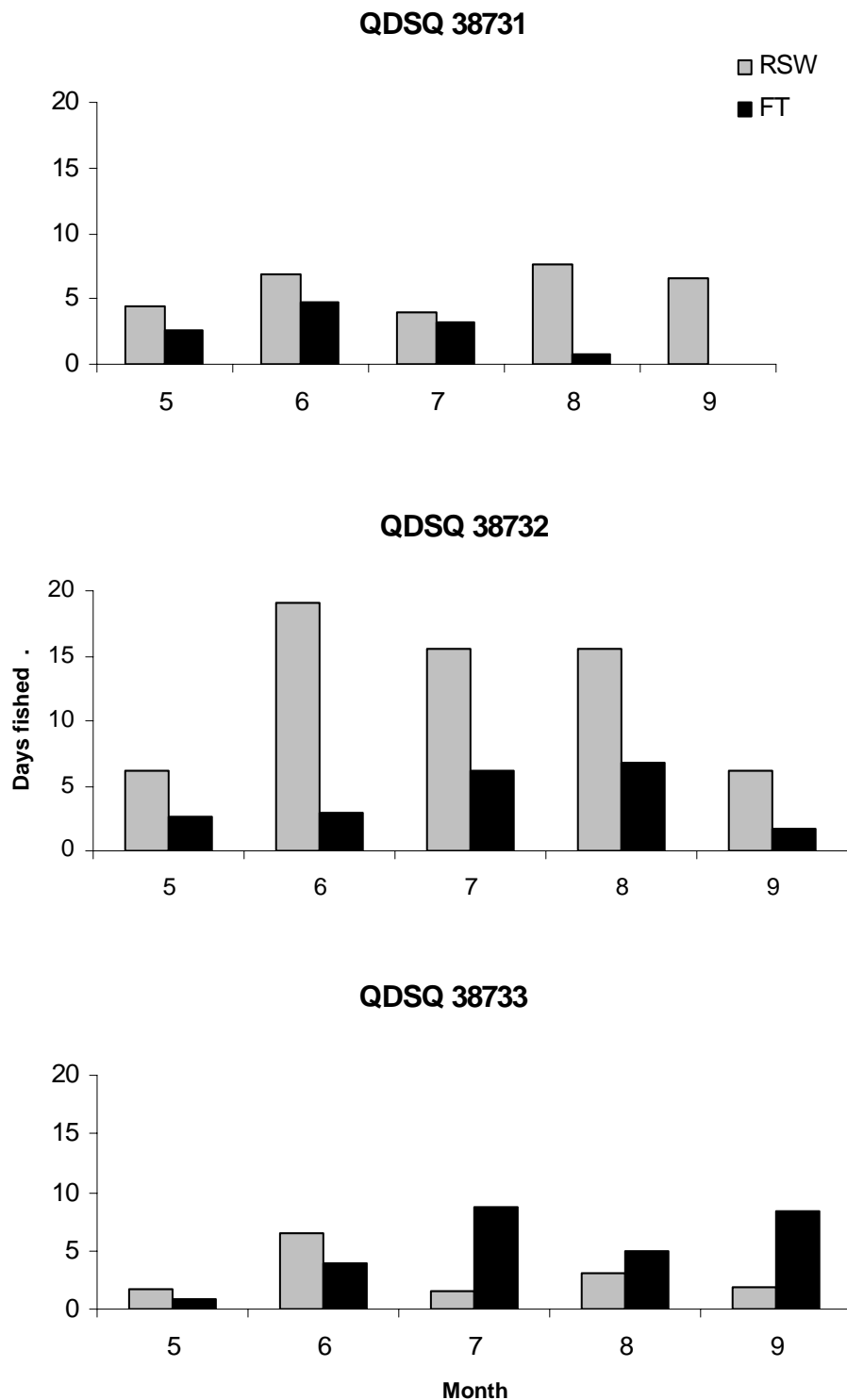


Figure C18. Effort (days fished), by fleet sector and month, in quarter-degree squares that were consistently fished during the 2004 *Illex* fishery. FT represents freezer trawlers and RSW represents refrigerated seawater system trawlers.

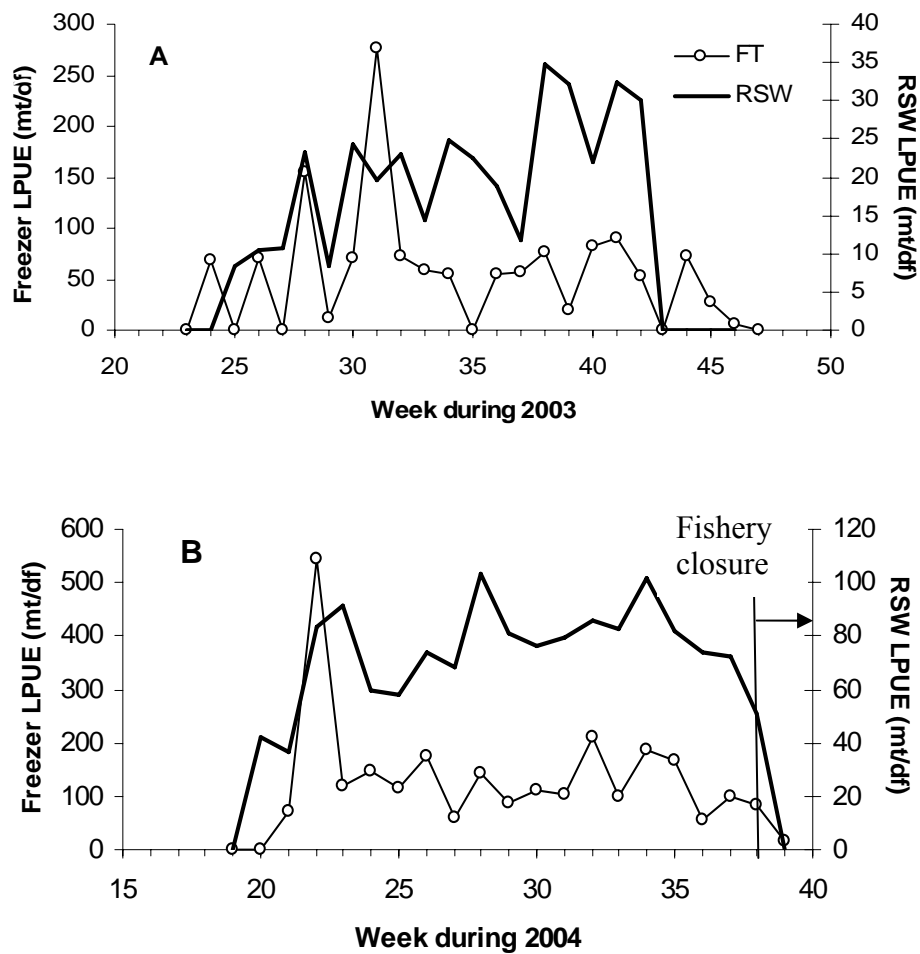


Figure C19. Weekly trends in nominal landings per unit effort (mt/day fished), by fleet sector, in the *Illex illecebrosus* fishery during (A) 2003 and (B) 2004. FT represents freezer trawlers and RSW represents refrigerated seawater system trawlers.

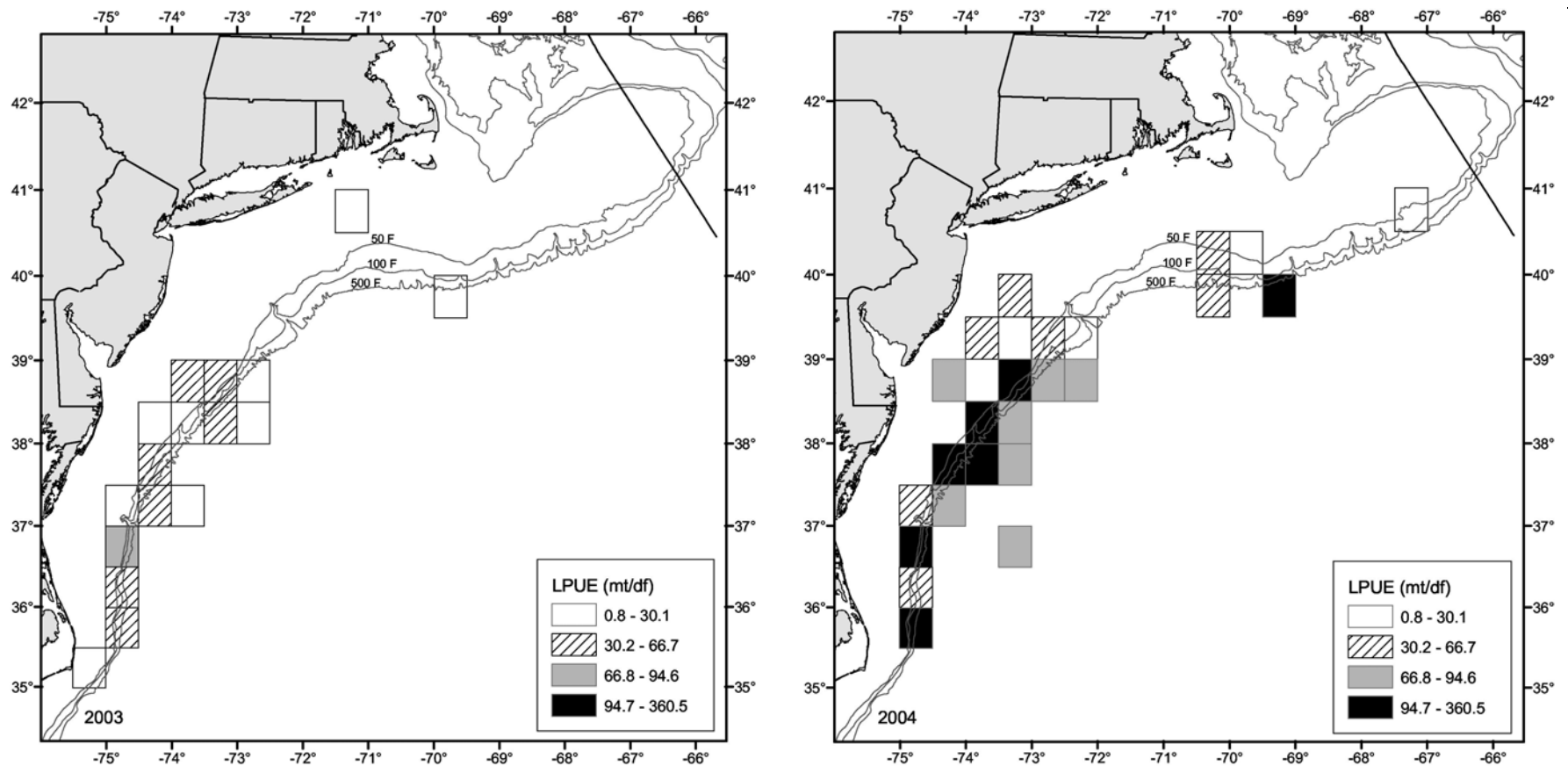


Figure C20. Nominal landings per unit of effort (mt/day fished), by quarter-degree square, for bottom trawlers participating in the *Illex illecebrosus* fishery during 2003 and 2004.

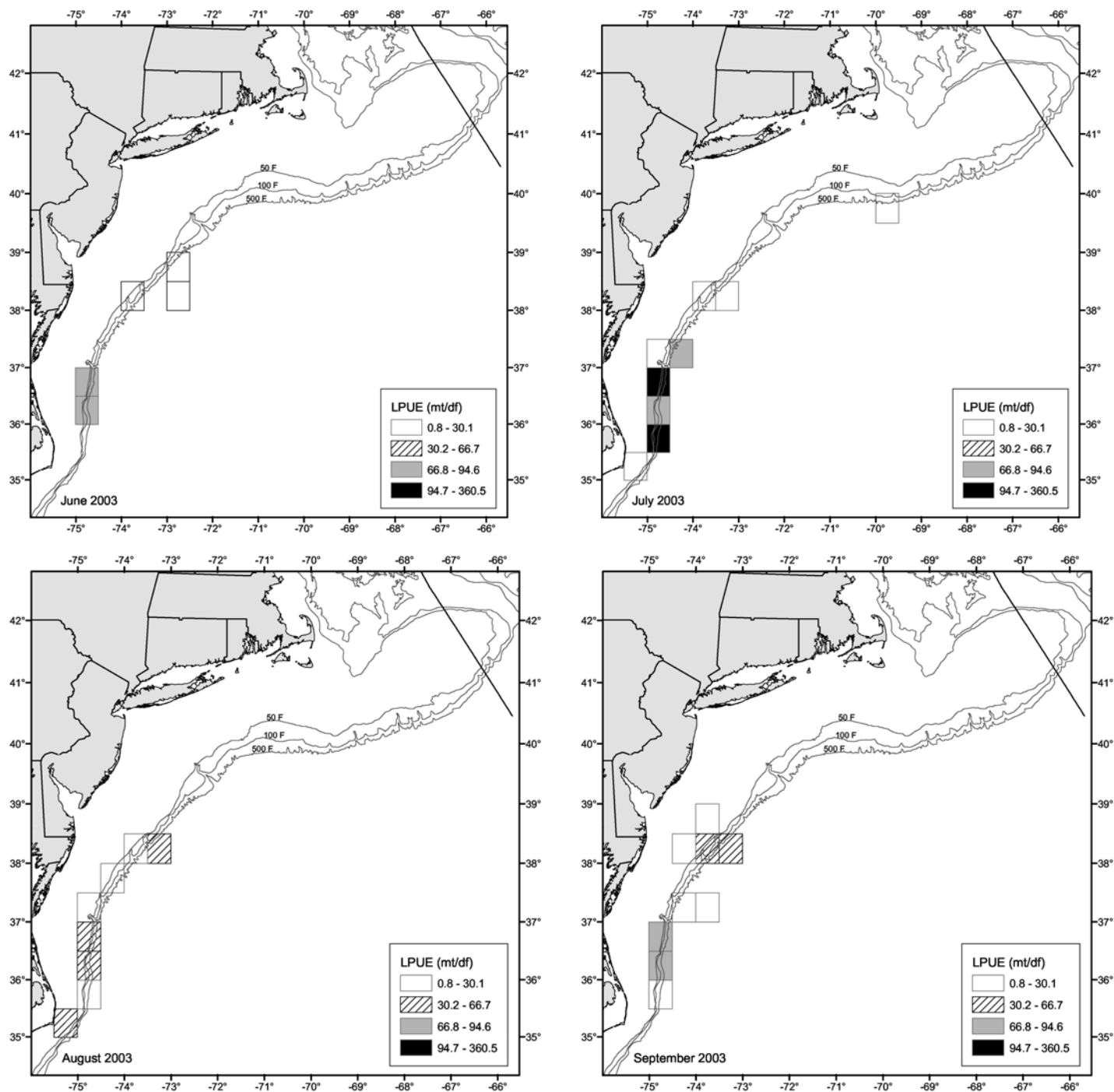


Figure C21. Monthly distribution of nominal landings per unit of effort (mt/days fished), by quarter-degree square, for bottom trawlers participating in the *Illex illecebrosus* fishery during June-October, 2003.

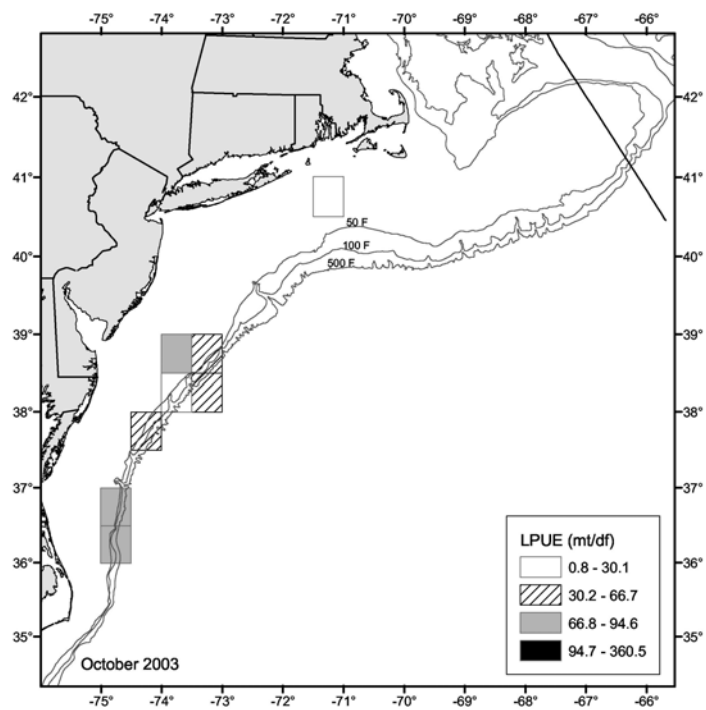


Figure C21. continued

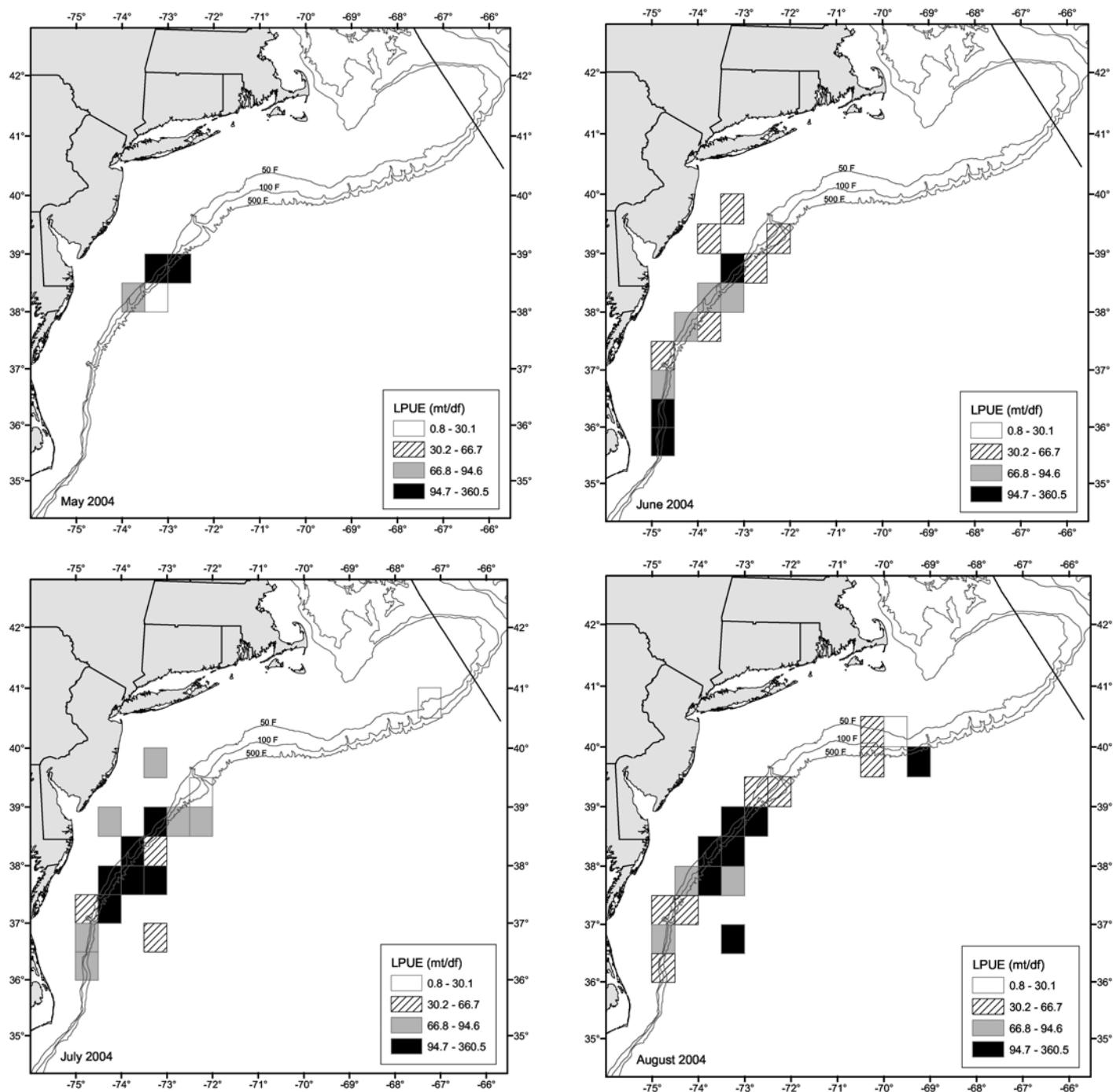


Figure C22. Monthly distribution of nominal landings per unit of effort (mt/days fished), by quarter-degree square, for bottom trawlers participating in the *Illex illecebrosus* fishery during May-September, 2004.

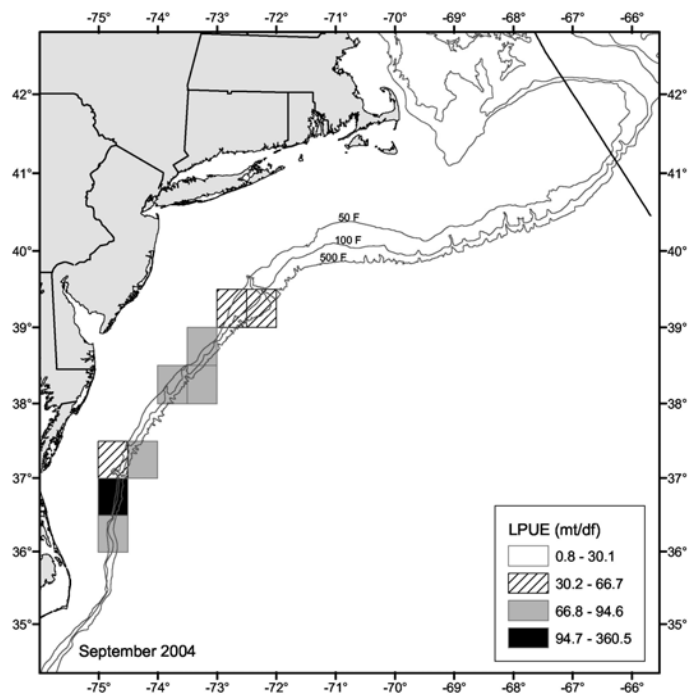


Figure C22. continued

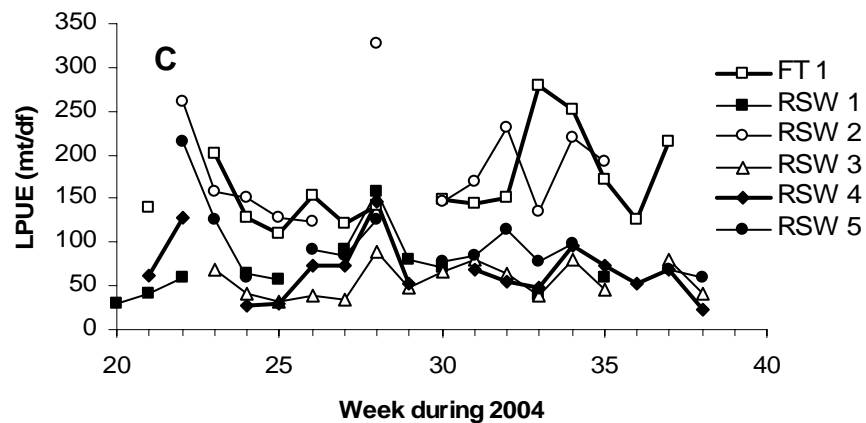
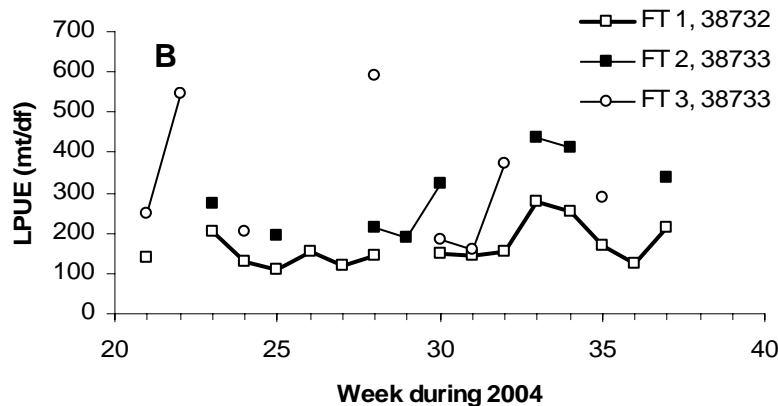
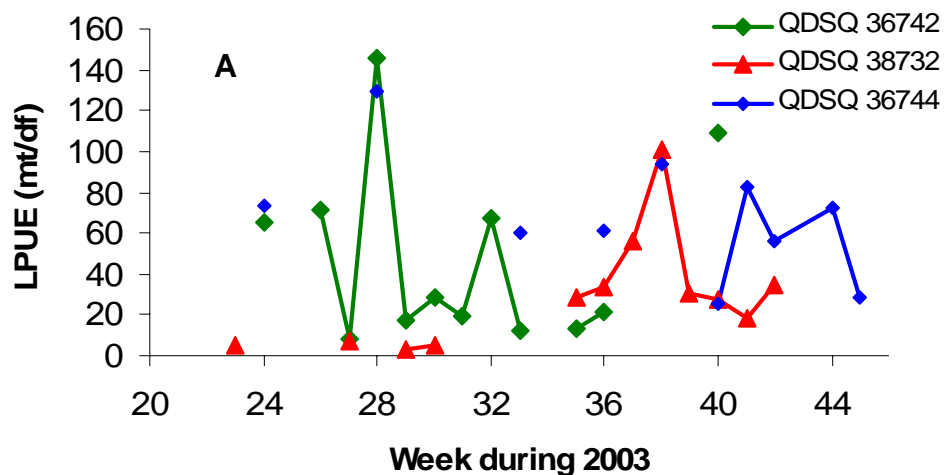


Figure C23. Example of (A) a sequential rise and fall pattern indicated by nominal LPUE for three quarter-degree squares fished by the *Illex* fleet during 2003 and examples of weekly fishing patterns (B) for freezer trawlers quarter-degree squares 38733 and 38732, and (C) for freezer trawlers versus RSW boats in square 38733 during 2004.

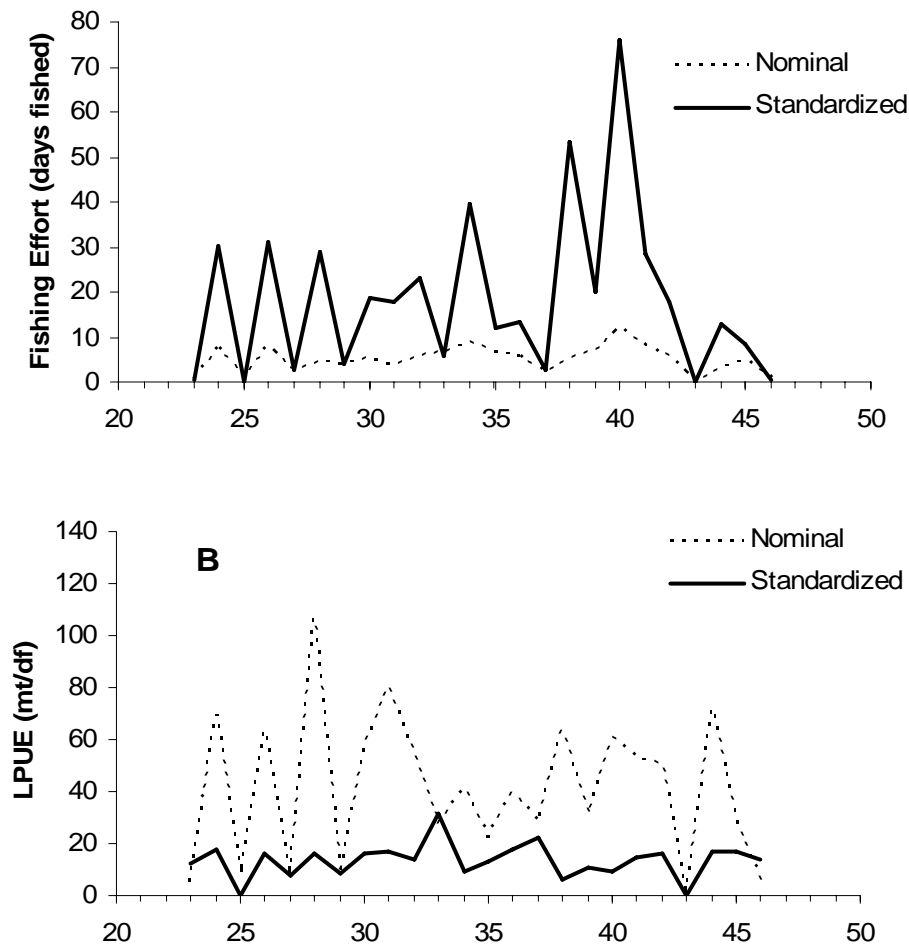


Figure C24. Weekly trends in nominal and standardized (A) fishing effort (df) based on Vessel Trip Report data and (B) LPUE (mt/df) computed from landings and effort data from the VTR Database for 2003.

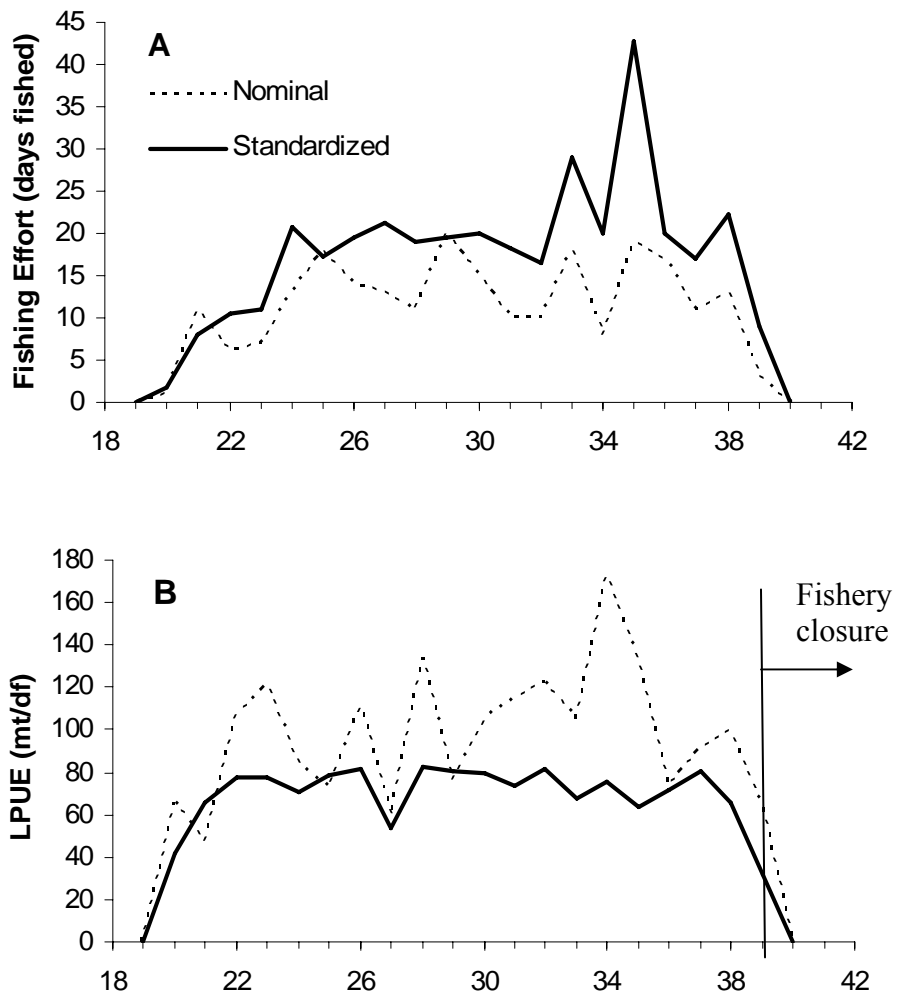


Figure C25. Weekly trends in nominal and standardized (A) fishing effort (df) based on Vessel Trip Report data and (B) LPUE (mt/df) computed from prorated landings from the Weighout Database and effort data from the VTR Database for 2004.

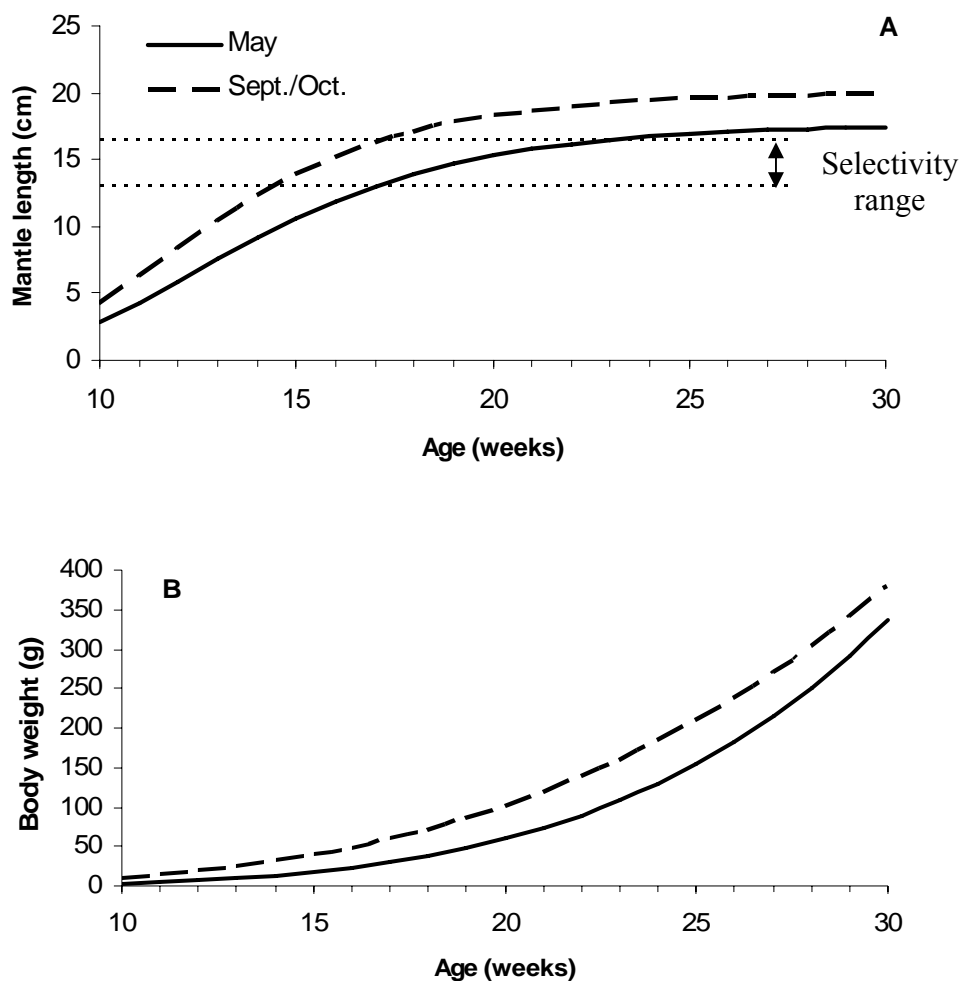


Figure C26 Growth rates of female *Illex illecebrosus* in May versus September/October, during 2000, in terms of (A) length and (B) body weight. The selectivity range shown represents the length range encompassing partial to full selectivity by the fishery and was derived by converting *Illex* lengths from the directed fishery, during 1999-2002, to ages using a weight-at-age relationship from a May 2000 *Illex* survey (Hendrickson 2004).